

WHAT IS CLAIMED IS:

1. An on-line game system comprising a plurality of interconnected game devices to allow a plurality of users to simultaneously play the same game,

wherein each of the plurality of game devices comprises:

at least one operation control manipulable by a user;

a communication arrangement allowing the game device to be coupled to the other game device(s) and receive and transmit operation control status data representing a state of the at least one operation control;

a buffer storage that sequentially stores operation control status data associated with the plurality of game devices in response to a round of data communication therebetween; and

an operation data storage that stores operation control status data associated with each of the plurality of game apparatuses, the operation control status data being used with game processing,

wherein, when the operation control status data stored in the buffer storage as a result of a particular round of data communication include valid operation key status data and invalid data, and the invalid operation control status data among the operation control status data resulting from a plurality of rounds of data communication including the particular round are not effectively transferred to the operation data storage, so that at least one such valid operation key status data is transferred for each of the plurality of game devices.

2. The on-line game system according to claim 1, wherein:

when the operation control status data stored in the buffer storage as a result of the particular round of data communication include invalid data, none of the operation control status data resulting from the given round of data communication is transferred; and

when all of the operation control status data resulting from the particular round of data communication are valid, all of the operation control status data resulting from the given round of data communication are transferred.

3. The on-line game system according to claim 1, wherein:

when the operation control status data stored in the buffer storage as a result of the particular round of data communication include valid operation control status data and invalid data, only the valid operation control status data are transferred to the operation data storage, so that one valid operation control status data is transferred for each of the plurality of game devices,

wherein the one valid operation control status data for each game device is an earliest valid operation control status data among the operation control status data resulting from a plurality of rounds of data communication including the given round.

4. The on-line game system according to claim 1, wherein the invalid data includes delayed processing notice data for notifying the other game device(s) of delayed processing.

5. The on-line game system according to claim 4, further comprising a transmission data buffer that temporarily stores data to be transmitted, wherein:

the delayed processing notice data is written to the transmission data buffer after the data is transferred out of the transmission data buffer; and

thereafter, when the operation control status data is input to the transmission data buffer, the delayed processing notice data is overwritten by the operation control status data.

6. The on-line game system according to claim 1, wherein one of the plurality of game devices has a function of initiating data communication.

7. An on-line game system comprising a plurality of interconnected game devices to allow a plurality of users to simultaneously play the same game software program,

wherein each of the plurality of game devices comprises:

at least one operation control for user manipulation;

a communication arrangement that couples the game devices to the other game device(s) to receive and transmit operation control status data representing a state of the at least one operation control;

a buffer storage that sequentially stores operation control status data associated with the plurality of game devices in response to a round of data communication;

an operation data storage that stores operation key status data associated with each of the plurality of game devices, the operation control status data being for use with game processing; and

a transfer arrangement that transfers the operation control status data stored in the buffer storage to the operation data storage,

wherein, when the operation control status data stored in the buffer storage as a result of a predetermined round of data communication include valid operation key status data and invalid data, the valid operation key status data among the operation key status data resulting from a plurality of rounds of data communication including the given round is transferred by the transfer arrangement to the operation data storage, without transferring at least some of the invalid data, so that at least one such valid operation control status data is transferred for each of the plurality of game devices.

8. A game apparatus for being interconnected to another game apparatus to allow a plurality of users to simultaneously play the same game software program, comprising:

at least one operation control for user manipulation;

a communication arrangement that couples the game apparatus to the other game apparatus and receives and transmits operation control status data representing a state of the at least one operation control;

a buffer storage that sequentially stores operation control status data associated with the plurality of game apparatuses in response to a round of data communication; and

an operation data storage that stores operation control status data associated with each of the plurality of game apparatuses, the operation control status data being for use with game processing,

wherein, when the operation control status data stored in the buffer storage as a result of a given round of data communication include valid operation control status data and invalid data, the valid operation control status data among the operation control status data resulting from a plurality of rounds of data communication including the given round are transferred to the operation data storage, without transferring at least some of the invalid data, so that at least one such valid operation control status data is transferred for each of the plurality of game apparatuses.

9. The game apparatus according to claim 8, wherein:

when the operation control status data stored in the buffer storage as a result of a given round of data communication include invalid data, none of the operation control status data resulting from the given round of data communication is transferred; and

when all of the operation control status data resulting from the given round of data communication are valid, all of the operation control status data resulting from the given round of data communication are transferred.

10. The game apparatus according to claim 8, wherein:

when the operation control status data stored in the buffer storage as a result of a given round of data communication include valid operation control status data and invalid data, only the valid operation control status data are transferred to the operation data storage, so that one valid operation control status data is transferred for each of the plurality of game apparatuses,

wherein the one valid operation control status data for each game apparatus is an earliest valid operation control status data among the operation control status data resulting from a plurality of rounds of data communication including the given round.

11. The game apparatus according to claim 8, wherein the invalid data includes delayed processing notice data for notifying the other game apparatus or game apparatuses of delayed processing.

12. The game apparatus according to claim 11, further comprising a transmission data buffer that temporarily stores data to be transmitted, wherein:

the delayed processing notice data is written to the transmission data buffer after the data is transferred out of the transmission data buffer; and

thereafter, when the operation control status data is input to the transmission data buffer, the delayed processing notice data is overwritten by the operation control status data.

13. The game apparatus according to claim 8 having a function of initiating data communication.

14. A game apparatus for being interconnected to another game apparatus to be used in a plurality to allow a plurality of users to simultaneously play the same game software program, comprising:

at least one operation key for user manipulation;

a communication arrangement for coupling the game apparatus to the other game apparatus(es) to receive and transmit operation key status data representing a state of the at least one operation key;

a buffer storage for sequentially storing operation key status data associated with the plurality of game apparatuses in response to a round of data communication;

an operation data storage for storing operation key status data associated with each of the plurality of game apparatuses, the operation key status data being for use with game processing; and

a transfer arrangement for transferring the operation key status data stored in the buffer storage to the operation data storage,

wherein, when the operation key status data stored in the buffer storage as a result of a given round of data communication include valid operation key status data and invalid data, only the valid operation key status data among the operation key status data resulting from a plurality of rounds of data communication including the given round are transferred by the transfer means to the operation data storage, without transferring the invalid data, so that at least one such valid operation key status data is transferred for each of the plurality of game apparatuses.

15. A computer-readable storage device having stored therein a program for controlling a game device interconnected with at least one other game device to allow a plurality of users to simultaneously play the same game, the program controlling the game device to execute the following steps:

generating operation control status data representing a state of at least one operation control which is subjected to user manipulation;

receiving and transmitting the operation control status data from/to the other game device(s);

sequentially storing operation control status data associated with the plurality of interconnected game devices in response to a round of data communication; and

retrieving, from among the plurality of sequentially stored operation control status data, the operation data associated with each of the plurality of game devices for use with game processing,

wherein the retrieving step comprises:

retrieving, when the operation control status data stored as a result of a given round of data communication include valid operation control status data and invalid data, the valid operation control status data among the operation control status data resulting from a plurality of rounds of data communication including the given round, so that at least one such valid operation control status data is retrieved for each of the plurality of game devices, without retrieving at least some of the invalid data.

16. The storage device according to claim 15, wherein the retrieving step comprises:

retrieving, when operation control status data stored as a result of a given round of data communication include invalid data, none of the operation control status data resulting from the given round of data communication; and

retrieving, when all of the operation control status data resulting from the given round of data communication are valid, all of the operation control status data resulting from the given round of data communication.

17. The storage device according to claim 15, wherein the retrieving step comprises:

retrieving, when the operation control status data stored as a result of a given round of data communication include valid operation control status data and invalid data, only the valid operation control status data, so that one valid operation control status data is retrieved for each of the plurality of game devices,

wherein the one valid operation control status data for each game device is an earliest valid operation control status data among the operation key status data resulting from a plurality of rounds of data communication including the given round.

18. The storage device according to claim 15, wherein the invalid data includes delayed processing notice data for notifying the other game device(s) of delayed processing.

19. The storage device according to claim 18, wherein the program stored in the storage device causes the game device to further execute a step of temporarily storing data to be transmitted to the other game device(s), the step comprising:

writing the delayed processing notice data after transferring the stored data; and

thereafter, when the operation control status data is input, overwriting the delayed processing notice data with the operation control status data.

20. The storage device according to claim 15, wherein the program stored in the storage device causes the game device to further execute a step of initiating data communication.

21. In a network of plural interconnected gaming devices each including a display and at least one user-operable control, a method of



coordinating said plural interconnected gaming devices to allow a corresponding plurality of users to interactively play the same game together, comprising:

- (a) determining, at each gaming device, whether a user has operated the user-operable control thereof, and updating associated user-operable control status data;
- (b) periodically sharing said user-operable control status data with other interconnected gaming devices over the network; and
- (c) avoiding transmission and/or use of at least some invalid control status data.

22. The network of claim 21 wherein the plural gaming devices are only loosely synchronized with one another.

23. The network of claim 21 wherein at least some of the gaming devices are portable handheld devices.